



Upgrade iMac Intel Core i3 CPU to Core i7

Upgraded my mid 2010 27 inch Apple iMac from a Core i3 3.2GHz (Dual core) upgraded to Core i7 2.93GHz (Quad core) processor.

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INTRODUCTION

Upgrade mid 2010 27 inch Apple iMac from a **Core i3** 3.2GHz (Dual core) to **Core i7** 2.93GHz (Quad core) processor.

I used this guide for disassembly and reassembly.

<http://www.btobey.com/learn/imac-ssd-ins...>

Also added a 3TB SATA drive and 32Gb of RAM to max out this system under Lion 10.7

- Update : Removed the 3Tb SATA drive and replaced with 512Gb SSD and upgraded to Mountain Lion 10.8
- If you upgrade or change the HD, you will need to buy HDDFanControl software to control the HDD fan which will run at full speed otherwise.
- April 2013 - 1 year later : This system has been absolutely ROCK SOLID with no crashes, no kernel panics and no freezes!
- April 2014 - 2 years later : now running OS X 10.9 Mavericks successfully with zero issues. System continues to be fast - but is starting to show its age compared to Sandy Bridge, Ivy Bridge and Haswell architectures! Newer apps are starting to creak at the seams & the beachball is now a fixture.
- April 2015 - 3 years later. Yosemite 10.10.3. Continuity works but Handoff does not (lacks built-in Bluetooth LE v4.0). Not as fast as my Haswell Macbook Pro or 2010 Xeon 12 proc Mac Pro, but still rock solid. With these simple mods, I have gained years of additional service out of this "obsolete" machine!
- May 2016 - 4 years later. Running El Capitan 10.11.5 . Only Handoff does not work (see above) but everything else is rock solid. New Notepad app rocks as does a stable version of Apple Mail (at last), and now that the abomination that was 'discoveryd' is dead and the tried and true 'mDNS-Responder' is back, networking is stellar once again. The system continues to amaze with its longevity.
- August 2016 - 4+ years later. Now running Sierra 10.12 Beta 2 with zero issues other than the usual beta bugs.
- November 2017 - It's been 5 years since I did the upgrade and I still use this iMac in anger every day! Now running a OWC 1TB SSD and High Sierra 10.13 with APFS. Machine has been absolutely flawless!



TOOLS:

- [Arctic Silver ArctiClean](#) (1)
- [Arctic Silver Thermal Paste](#) (1)
- [Heavy-Duty Suction Cups \(Pair\)](#) (2)
- [Pro Tech Toolkit](#) (1)



PARTS:

- [Intel Core i7 870 2.93GHz 8MB LGA 1156 Quad Core Processor 95W](#) (1)
CPU

Step 1 — CPU



- Start by gathering your parts, tools, anti-static strap and gloves (gloves are for glass & LCD)
- Remove glass
- Then remove LCD. iFixit has step-by-step- write-ups on how to do this.

Step 2



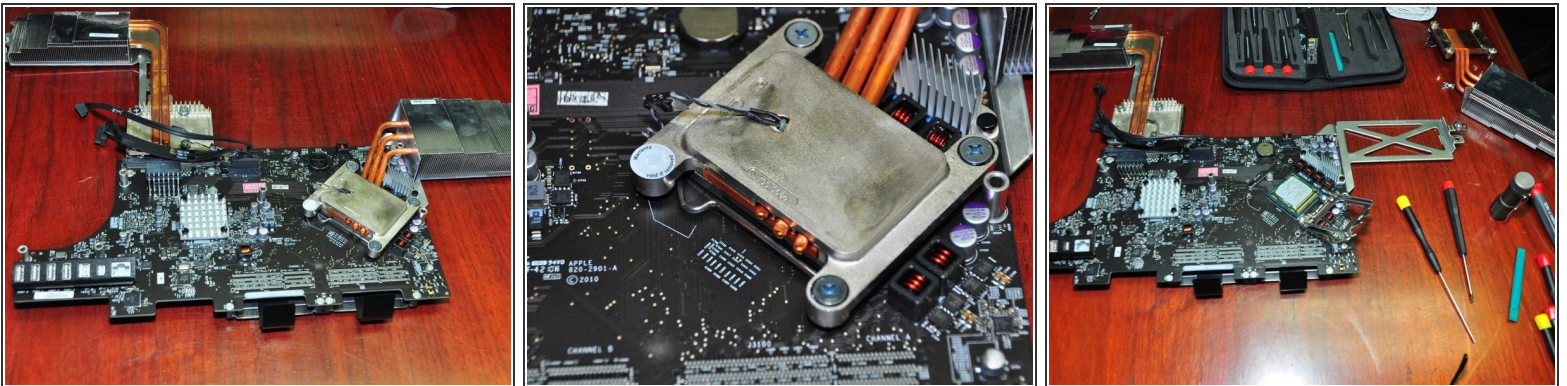
- Core i7 2.93GHz Quad Core processor, Arctic Silver thermal compound and iFixit + OWC tools
- Processor is Intel Core i7 870 2.93GHz 8MB LGA 1156 Quad Core Processor 95W. I bought this CPU used on eBay.
- <http://ark.intel.com/products/41315/Inte...>

Step 3



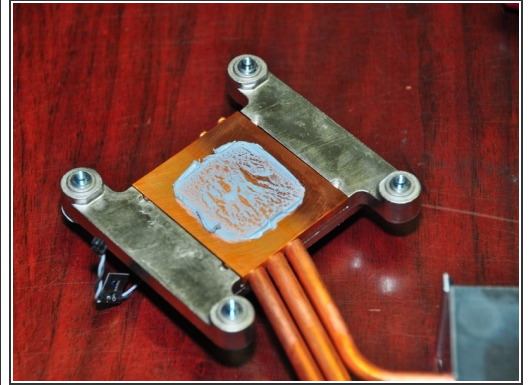
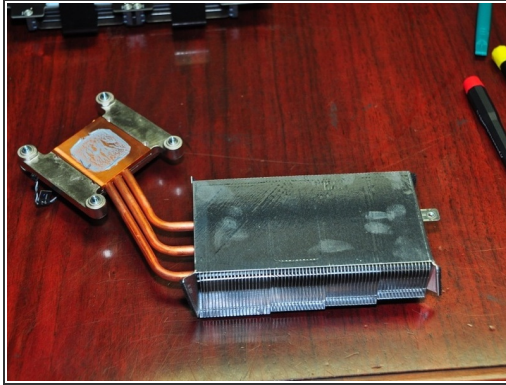
- Remove HD, Superdrive and motherboard. Follow the excellent iFixit guides to remove these items.
- To remove motherboard (a little tricky), I followed this excellent guide - <http://www.btobey.com/learn/imac-ssd-ins...>
- Not mentioned in the guide is that you have to remove the IR sitting in back of the front Apple logo before you can remove the motherboard.

Step 4



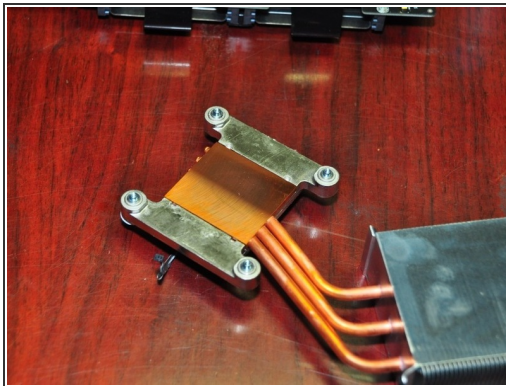
- Flip over motherboard, gently remove 4 x Torx 8 heatsink screws on the bottom (not the big Phillips screws on the top).
- Please note : Warranty is void with this step.

Step 5



- Use Arctic Silver thermal compound remover and preparation solutions to get rid of factory compound.

Step 6



- Goodbye Core i3 and hello Core i7.
- Note arrow on CPU (bottom left in picture). New CPU must be installed in the same orientation.
- Apply Arctic Silver thermal compound with finger covered in plastic. Spread evenly on CPU only. Guide is here - [How to Apply Thermal Paste](#)
- Reverse to reassemble. Enjoy the new speed demon!

Step 7



- More than 5 years later - now running High Sierra 10.13 - machine has been flawless!

To reassemble your device, follow these instructions in reverse order.

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